



Robert Greene Sterne  
Edward J. Kessler  
Jorge A. Goldstein  
David K.S. Cornwell  
Robert W. Esmond  
Tracy-Gene G. Durkin  
Michele A. Cimbala  
Michael B. Ray  
Robert E. Sokohl  
Eric K. Steffe  
Michael Q. Lee  
Steven R. Ludwig  
John M. Covert  
Linda E. Alcorn  
Robert C. Millonig  
Lawrence B. Bugaisky  
Donald J. Featherstone  
Michael V. Messinger

Judith U. Kim  
Timothy J. Shea, Jr.  
Patrick E. Garrett  
Heidi L. Kraus  
Edward W. Yee  
Albert L. Ferro\*  
Donald R. Banowitz  
Peter A. Jackman  
Teresa A. Medler  
Jeffrey S. Weaver  
Kendrick P. Patterson  
Vincent L. Capuano  
Eldora Ellison Floyd  
Thomas C. Fiala  
Brian J. Del Buono  
Virgil Lee Beaton  
Kimberly N. Reddick  
Theodore A. Wood

Elizabeth J. Haanes  
Joseph S. Ostroff  
Frank R. Cottingham  
Christine M. Lhulier  
Rae Lynn Prengaman  
Jane Shershenovich\*  
Lawrence J. Carroll\*  
George S. Bardmesser  
Daniel A. Klein\*  
Jason D. Eisenberg  
Michael D. Specht  
Andrea J. Kamage  
Tracy L. Muller\*  
LuAnne M. DeSantis  
John J. Figueroa  
Ann E. Summerfield  
Tiera S. Coston\*  
Aric W. Ledford\*

Michael D. Specht  
Jessica L. Parezo  
Timothy A. Doyle\*  
Cynthia M. Bouchez  
Nicole D. Dretar\*  
Ted J. Ebersole  
**Registered Patent Agents\***  
Karen R. Markowicz  
Nancy J. Leith  
Helene C. Carlson  
Gaby L. Longworth  
Matthew J. Dowd  
Aaron L. Schwartz  
Mary B. Tung  
Katrina Y. Pei Quach  
Bryan L. Skelton  
Robert A. Schwartzman

Teresa A. Colella  
Jeffrey S. Lundgren  
Victoria S. Rutherford  
Eric D. Hayes  
Michelle K. Holoubek  
Robert H. DeSelms  
Simon J. Elliott  
Julie A. Heider  
Mita Mukerjee  
Scott M. Woodhouse  
**Of Counsel**  
Kenneth C. Bass III  
Evan R. Smith  
Marvin C. Guthrie  
\*Admitted only in Maryland  
\*Admitted only in Virginia  
•Practice Limited to Federal Agencies

March 24, 2004

**WRITER'S DIRECT NUMBER:**  
(202) 772-8643  
**INTERNET ADDRESS:**  
AFERRO@SKGF.COM

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Art Unit 3611**  
**Examiner: To Be Assigned**  
**Confirmation No.: 6480**

Re: U.S. Utility Patent Application  
Application No. 10/681,226; Filed: October 9, 2003  
For: **Vehicle Improved Steering**  
Inventors: **IRIKURA et al.**  
Our Ref: 0666.1400002/TGD/ALF

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement;
2. List of Documents Cited on Forms PTO/SB/08a and PTO/SB/08b (9 Pages);
3. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents

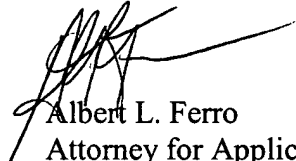
March 24, 2004

Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Albert L. Ferro  
Attorney for Applicants  
Registration No. 44,679

TGD/ALF/awt  
Enclosures

244587\_1.DOC



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

IRIKURA *et al.*

Appl. No.: 10/681,226

Filed: October 9, 2003

For: **Vehicle Improved Steering**

Confirmation No.: 6480

Art Unit: 3611

Examiner: *To Be Assigned*

Atty. Docket: 0666.1400002/TGD/ALF

**Information Disclosure Statement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying SB/08a and SB/08b forms are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached SB/08a and SB/08b forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☒ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed within three months of the date of filing of a national application other than a continued prosecution application (CPA), OR within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, OR before the mailing date of a first Office Action on the merits OR before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.
- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.

- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$\_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$\_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:
- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign

application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).

- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below:
- ☐ 7. Copies of the documents are submitted herewith.
- ☒ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. 10/122,396, filed April 16, 2002, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).


No copies of the U.S. patents, U.S. patent applications, and U.S. patent publications listed on the attached Forms PTO-SB/08a and Forms PTO SB/08b are submitted in accordance with 1276 OG 55 because this application was filed after June 30, 2003.

It is respectfully requested that the Examiner initial and return a copy of the enclosed SB/08a and SB/08b forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Albert L. Ferro  
Attorney for Applicants  
Registration No. 44,679

Date: March 24, 2004

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

9

Application Number

10/681,226

Filing Date

October 9, 2003

First Named Inventor

Irikura et al.

ART Unit

3611

Examiner Name

To Be Assigned

Attorney Docket Number

0666.1400002/TGD/ALF

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (If Known)			
	AA1	US-168,955	10-19-1875	Annin	
	AB1	US-2,191,961	02-27-1940	Howell	
	AC1	US-2,255,348	09-09-1941	Brown	
	AD1	US-2,311,922	02-23-1943	Allin	
	AE1	US-2,332,838	10-26-1943	Borgward	
	AF1	US-2,336,911	12-14-1943	Zimmerman	
	AG1	US-2,336,912	12-14-1943	Zimmerman	
	AH1	US-2,391,735	12-25-1945	Orshansky, Jr.	
	AI1	US-2,530,720	11-21-1950	Paulson	
	AJ1	US-2,745,506	05-15-1956	McCallum	
	AK1	US-2,763,164	09-18-1956	Neklutin	
	AL1	US-2,936,033	05-10-1960	Gates	
	AM1	US-3,059,416	10-23-1962	Campbell	
	AN1	US-3,371,734	03-05-1968	Zaunberger	
	AO1	US-3,376,760	04-09-1968	Gordanier	
	AP1	US-3,395,671	08-06-1968	Zimmerman	
	AQ1	US-3,450,218	06-17-1969	Looker	
	AR1	US-3,492,891	02-03-1970	Livezey	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>4</sup> Kind Code <sup>5</sup> (in known)				
	FP1	CH 168,955	06-15-1947	Dufour		
	FP2	DE 4224887	09-30-1993	Hering		
	FP3	EP 806337 A1	11-12-1997	Ferrari		
	FP4	FR 1147142	11-19-1957	Collective.		
	FP5	GB 2303829 A	03-05-1997	Barnes		
	FP6	JP 57140277	08-30-1982	Kido		

Examiner Signature

Date

Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

2

of

**Complete If Known**

Application Number	10/681,226
Filing Date	October 9, 2003
First Named Inventor	Irikura <i>et al.</i>
App Unit	3611
Examiner Name	To Be Assigned
Attorney Docket Number	0666.1400002/TGD/ALF

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (If Known)			
	AA2	US-3,530,741	09-29-1970	Charest	
	AB2	US-3,590,658	07-06-1971	Tuck	
	AC2	US-3,596,535	08-03-1971	Polak	
	AD2	US-3,603,176	09-07-1971	Tipping <i>et al.</i>	
	AE2	US-3,612,199	10-12-1971	Vissers	
	AF2	US-3,717,212	02-20-1973	Potter	
	AG2	US-3,796,275	03-12-1974	Bouyer	
	AH2	US-3,869,014	03-04-1975	Federspiel <i>et al.</i>	
	AI2	US-3,901,339	08-26-1975	Williamson	
	AJ2	US-3,903,977	09-09-1975	Gillette <i>et al.</i>	
	AK2	US-3,907,051	09-23-1975	Weant <i>et al.</i>	
	AL2	US-3,966,005	06-29-1976	Binger	
	AM2	US-3,978,937	09-07-1976	Chichester <i>et al.</i>	
	AN2	US-4,133,404	01-09-1979	Griffin	
	AO2	US-4,174,762	11-20-1979	Hopkins <i>et al.</i>	
	AP2	US-4,245,524	01-20-1981	Dammon	
	AQ2	US-4,281,737	08-04-1981	Molzahn	
	AR2	US-4,320,810	03-23-1982	Hillmannet <i>al.</i>	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	FP7	JP 63227476	09-21-1988	Suzuki <i>et al.</i>		
	FP8	JP 2261952	10-24-1990	Sato		
	FP9	JP 6264976	09-20-1994	Kenji		
	F10	JP 8142906	06-04-1996	Hidaka		
	FP11	JP 9202255	08-05-1997	Hidaka		
	FP12	JP 9202258	08-05-1997	Hidaka		

Examiner Signature		Date Considered	
--------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

MAR 24 2004

Complete If Known

Application Number	10/681,226
Filing Date	October 9, 2003
First Named Inventor	Irikura <i>et al.</i>
App Unit	3611
Examiner Name	To Be Assigned
Attorney Docket Number	0666.1400002/TGD/ALF

Sheet	3	of	
-------	---	----	--

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (If Known)			
	AA3	US-4,399,882	08-23-1983	O'Neil <i>et al.</i>	
	AB3	US-4,471,669	09-18-1984	Seaberg	
	AC3	US-4,572,310	02-25-1986	Peter	
	AD3	US-4,577,711	03-25-1986	Butler	
	AE3	US-4,620,575	11-04-1986	Cuba <i>et al.</i>	
	AF3	US-4,718,508	01-12-1988	Tervola	
	AG3	US-4,729,257	03-08-1988	Nelson	
	AH3	US-4,732,053	03-22-1988	Gleasman <i>et al.</i>	
	AI3	US-4,738,328	04-19-1988	Hayden	
	AJ3	US-4,776,235	10-11-1988	Gleasman <i>et al.</i>	
	AK3	US-4,776,236	10-11-1988	Gleasman <i>et al.</i>	
	AL3	US-4,782,650	11-08-1988	Walker	
	AM3	US-4,790,399	12-13-1988	Middlesworth	
	AN3	US-4,809,796	03-07-1989	Yamaoka <i>et al.</i>	
	AO3	US-4,813,506	03-21-1989	Smith	
	AP3	US-4,870,820	10-03-1989	Nemoto	
	AQ3	US-4,875,536	10-24-1989	Saur <i>et al.</i>	
	AR3	US-4,882,947	11-28-1989	Barnard	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>4</sup> Kind Code <sup>5</sup> (in known)				
	FP13	JP 9202259	08-05-1997	Hidaka		
	FP14	JP 9216522	08-19-1997	Hidaka		
	FP15	WO 92/12889	08-06-1992	Morimoto		
	FP16	WO 98/32645	07-30-1998	Hidaka <i>et al.</i>		
	FP17	WO 99/40499	08-12-1999	Emerson		
	FP18	WO 00/01569	01-13-2000	Abend <i>et al.</i>		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

4

of

9

**Complete If Known**

Application Number	10/681,226
Filing Date	October 9, 2003
First Named Inventor	Irikura <i>et al.</i>
Attorney Unit	3611
Examiner Name	To Be Assigned
Attorney Docket Number	0666.1400002/TGD/ALF

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (If Known)			
	AA4	US-4,895,052	01-23-1990	Gleasman <i>et al.</i>	
	AB4	US-4,917,200	04-17-1990	Lucius	
	AC4	US-4,932,209	06-12-1990	Okada <i>et al.</i>	
	AD4	US-4,949,823	08-21-1990	Coutant <i>et al.</i>	
	AE4	US-5,004,060	04-02-1991	Barbagli <i>et al.</i>	
	AF4	US-5,015,221	05-14-1991	Smith	
	AG4	US-5,052,511	10-01-1991	Hunt	
	AH4	US-5,094,326	03-10-1992	Schemelin <i>et al.</i>	
	AI4	US-5,131,483	07-21-1992	Parkes	
	AJ4	US-RE34,057	09-08-1992	Middlesworth	
	AK4	US-5,195,600	03-23-1993	Dorgan	
	AL4	US-5,201,240	04-13-1993	Hayes <i>et al.</i>	
	AM4	US-5,247,784	09-28-1993	Kitamura <i>et al.</i>	
	AN4	US-5,279,376	01-18-1994	Yang <i>et al.</i>	
	AO4	US-5,285,866	02-15-1994	Ackroyd	
	AP4	US-5,307,612	05-03-1994	Tomiyama <i>et al.</i>	
	AQ4	US-5,314,387	05-24-1994	Hauser <i>et al.</i>	
	AR4	US-5,335,739	08-09-1994	Pieterse <i>et al.</i>	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>4</sup> Kind Code <sup>5</sup> (in known)				
	FP19	WO 00/19127	04-06-2000	Hasegawa <i>et al.</i>		

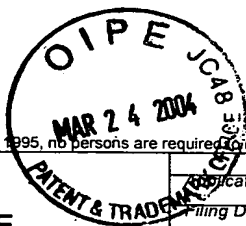
Examiner Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 5 of 9

**Complete if Known**

Application Number	10/681,226
Filing Date	October 9, 2003
First Named Inventor	Irikura <i>et al.</i>
Art Unit	3611
Examiner Name	To Be Assigned
Attorney Docket Number	0666.1400002/TGD/ALF

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA5	US-5,339,631	08-23-1994	Ohashi	
	AB5	US-5,367,861	11-29-1994	Murakawa <i>et al.</i>	
	AC5	US-5,383,528	01-24-1995	Nicol	
	AD5	US-5,387,161	02-07-1995	Shibahata	
	AE5	US-5,505,279	04-09-1996	Louis <i>et al.</i>	
	AF5	US-5,507,138	04-16-1996	Wright <i>et al.</i>	
	AG5	US-5,517,809	05-21-1996	Rich	
	AH5	US-5,535,840	07-16-1996	Ishino <i>et al.</i>	
	AI5	US-5,553,453	09-10-1996	Coutant <i>et al.</i>	
	AJ5	US-5,560,447	10-01-1996	Ishii <i>et al.</i>	
	AK5	US-5,564,518	10-15-1996	Ishii <i>et al.</i>	
	AL5	US-5,644,903	07-08-1997	Davis, Jr.	
	AM5	US-5,649,606	07-22-1997	Bebernes <i>et al.</i>	
	AN5	US-5,667,032	09-16-1997	Kamlukin	
	AO5	US-5,706,907	01-13-1998	Unruh	
	AP5	US-5,722,501	03-03-1998	Finch <i>et al.</i>	
	AQ5	US-5,775,437	07-07-1998	Ichikawa <i>et al.</i>	
	AR5	US-5,782,142	07-21-1998	Abend <i>et al.</i>	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>4</sup> Kind Code <sup>5</sup> (if known)				

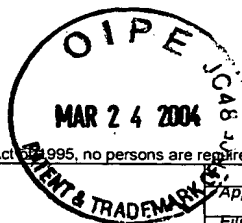
Examiner Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/681,226
		Filing Date	October 9, 2003
		First Named Inventor	Irikura <i>et al.</i>
		Art Unit	3611
		Examiner Name	To Be Assigned
Sheet 6 of 9	Attorney Docket Number	0666.1400002/TGD/ALF	

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (If Known)			
	AA6	US-5,842,378	12-01-1998	Zellmer	
	AB6	US-5,850,886	12-22-1998	Kouno <i>et al.</i>	
	AC6	US-5,894,907	04-20-1999	Peter	
	AD6	US-5,910,060	06-08-1999	Blume	
	AE6	US-5,913,802	06-22-1999	Mullet <i>et al.</i>	
	AF6	US-5,946,894	09-07-1999	Eavenson <i>et al.</i>	
	AG6	US-5,947,219	09-07-1999	Peter <i>et al.</i>	
	AH6	US-5,975,224	11-02-1999	Satzler	
	AI6	US-5,997,425	12-07-1999	Coutant <i>et al.</i>	
	AJ6	US-6,026,634	02-22-2000	Peter <i>et al.</i>	
	AK6	US-6,035,959	03-14-2000	Schaedler	
	AL6	US-6,038,840	03-21-2000	Ishimori <i>et al.</i>	
	AM6	US-6,098,386	08-08-2000	Shimizu <i>et al.</i>	
	AN6	US-6,098,737	08-08-2000	Aoki	
	AO6	US-6,098,740	08-08-2000	Abend <i>et al.</i>	
	AP6	US-6,126,564	10-03-2000	Irikura <i>et al.</i>	
	AQ6	US-6,129,164	10-10-2000	Teal <i>et al.</i>	
	AR6	US-6,141,947	11-07-2000	Borling	

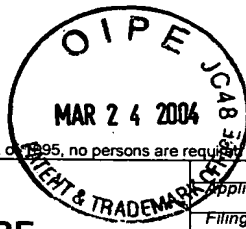
FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>4</sup> Kind Code <sup>5</sup> (in known)				

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Substitute for form 1449A/PTO				<b>Complete If Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				Application Number	10/681,226
				Filing Date	October 9, 2003
				First Named Inventor	Irikura <i>et al.</i>
				Art Unit	3611
				Examiner Name	To Be Assigned
Sheet	7	of	9	Attorney Docket Number	0666.1400002/TGD/ALF

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA7	US-6,152,248	11-28-2000	Hidaka <i>et al.</i>	
	AB7	US-6,189,641	02-20-2001	Azuma	
	AC7	US-6,196,342	03-06-2001	Teal <i>et al.</i>	
	AD7	US-6,196,348	03-06-2001	Yano <i>et al.</i>	
	AE7	US-6,257,357	07-10-2001	Teal <i>et al.</i>	
	AF7	US-6,260,641	07-17-2001	Hidake	
	AG7	US-6,283,236	09-04-2001	Teal <i>et al.</i>	
	AH7	US-6,312,354	11-06-2001	Irikura <i>et al.</i>	
	AI7	US-6,336,513	01-08-2002	Hasegawa <i>et al.</i>	
	AJ7	US-6,354,388	03-12-2002	Teal <i>et al.</i>	
	AK7	US-6,397,966	06-04-2002	Irikura <i>et al.</i>	
	AL7	US-6,447,419	09-10-2002	Irikura	
	AM7	US-6,484,827	11-26-2002	Teal	
	AN7	US-6,524,205	02-25-2003	Irikura	
	AO7	US-6,540,633	04-01-2003	Hasegawa	
	AP7	US-6,547,685	04-15-2003	Kawada	
	AQ7	US-6,554,085	04-29-2003	Hasegawa	
	AR7	US-6,629,577	10-07-2003	Abend	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>4</sup> Kind Code <sup>5</sup> (in known)				

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person shall be required to respond to a collection of information unless it displays a valid OMB control number.

<b>Substitute for form 1449B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete If Known</b>	
				Application Number	10/681,226
				Filing Date	October 9, 2003
				First Named Inventor	Irikura <i>et al.</i>
				Art Unit	3611
				Examiner Name	To Be Assigned
Sheet	8	of	9	Attorney Docket Number	0666.1400002/TGD/ALF

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPLD1	Excel Industries Inc., "U-T-R The Ultimate Turning Raduis," pp. 1-6, December 1992.	
	NPLD2	Electric Tractor Corporation, "An Idea Whose Time Has Come," 5 pages, date of publication unknown, published in Ontario, Canada.	
	NPLD3	Electric Tractor Corporation, Model #9620- The Ultimate Lawn and Garden Tractor, 6 pages, printed, July 27, 1998.	
	NPLD4	Farm Show Magazine, "Battery Powered Riding Mower," 1 page, date of publication, March-April 1996.	
	NPLD5	Deere & Company, "240, 245, 260, 265, 285 and 320 Lawn and Garden Tractors, Technical Manual," front cover and pp. 10-2 to 10-4 and 10-6, dated September 26, 1996.	
	NPLD6	Excel Industries, Inc., "Hustler 4000 Series," product brochure, pp. 1-8, December 1995.	
	NPLD7	Woods Equipment Company, "Woods Mow'n Machine," product brochure, pp. 1-12, December 1997.	
	NPLD8	Ex-Mark, "ExMark Nobody Does It Better - Professional Turf Care Equipment," pp. 1-20, December 1997.	
	NPLD9	Dixon Industries, Inc., "Dixon ZTR Riding Mowers," pp. 1-4, December 1997.	
	NPLD10	Shivers Mfg., "Zero Turn Radius Mower - The Commercial Clipper," pp. 1-4, December 1997	

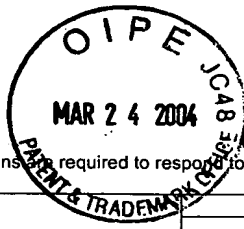
Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>Substitute for form 1449B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete If Known</b>	
				Application Number	10/681,226
				Filing Date	October 9, 2003
				First Named Inventor	Irikura <i>et al.</i>
				Art Unit	3611
				Examiner Name	To Be Assigned
Sheet	9	of	9	Attorney Docket Number	0666.1400002/TGD/ALF

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	NPLD11	OGORKIEWICZ, R. M., "Tank Steering Mechanisms," The Engineer, pp. 337-340, March 3, 1967.	
	NPLD12	Ferris Industries Inc., "The ProCut Z Zero-Turn Rider," pp. 1-2, December 1997.	
	NPLD13	Zipper-TS Mower, "The Zipper-TS Mowers," pp. 1-2, 1997.	
	NPLD14	Westwood, "The Westwood Clipper Owners Instruction Manual," pp. 1-17 and 19, date of publication unknown.	
	NPLD15	Brochure regarding differential steering, pp. 4-15, date of publication unknown.	
	NPLD16	BARGO, Michael, Jr., "Tanks And Dozers Turn On A Dime With New All Gear Steering," <i>Popular Science</i> , pp. 60-62, July 1985.	
	NPLD17	Patent Cooperative Treaty International Search Report, International Application No. PCT/US98/13811 dated November 1998.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.